GENERAL GORGAS TELLS OF TASK OF CLEANING UP THE WORLD

Man Who Changed Canal Zone From a Pest Hole to a Health Resort Thinks Entire Banishment of All Epidemic Diseases a Possibility

Undertaking Bound to Be Started, He Says, and Could Be Accomplished Quickly and Certainly

"THE task of 'cleaning up' the world, with a view to getting rid of the great epidemic diseases which are wholesale destroyers of mankind, seems at first glance very formidable, but it is bound to be undertaken and will be accomplished more easily and with much more rapidity than the average layman would be inclined to expect."

It was Major-Gen. William C. Gorgas who made this statement—the man who transformed the Canal Zone from a pest hole into one of the most salubrious regions on the earth, and this within the brief period of half a dozen years. The Rockefeller Foundation is understood to have engaged his services, when he shall have retired from the post of Surgeon-General of the Army to manage a campaign for the stamping out of yellow fever in all countries where it now prevails.

"Where epidemic diseases, such as yellow fever, are concerned," said Gen. Gorgas, "it may be said that we have them at a certain disadvantage. The bacterial or other germs that cause them—in the case of yellow fever it is an animal parasite—are manifestly living and propagating their species under conditions not favorable to their survival. If the situation were otherwise the maladies they engender would not be epidemic in character, for the very word 'epidemic' implies that such onslaughts are temporary.

"It is to be inferred, then, that these germs are able to do mischief only when conditions, through one sort of accident or another, happen to favor them. Accordingly our task is to eliminate such favoring conditions, as was done in the Canal Zone, for instance, by draining swamps and adopting other measures calculated to discourage the breeding of the particular species of mosquito that is the sole carrier of yellow fever, and in the absence of which this disease cannot possibly exist.

"In this kind of work no little ingenuity has been exercised. Thus, for example, at the time when the great sheet of water known as Gatun Lake was created by flooding a hollow in the hills, the town of Gatun was beset by anopheles mosquitoes—the species that carries malaria. Whence they came was a puzzle, and, to solve it, a regular business was made of catching mosquitoes in every nearby swamp and painting them.

"The method adopted was to suspend mosquito bars from tree branches in the swamps, placing inside of each one a colored person for bait. For this purpose the bars were left open until a good many of the insects were inside of them and then they were tied bag fashion at the bottoms. The negroes got 10 cents an hour for their services.

"The next morning—the anopheles flies only at night—a hose with a sprinkling nozzle was introduced into each bar and the mosquitoes contained in it were wet with water tinted red, blue, green, or yellow, with aniline dye. For each swamp a particular color was used, so that, when the mosquitoes at Gatun were afterward observed, the prevalence of a special hue among those of them that were painted showed where they came from. In this way we located the source of the plague, which was soon stopped by suitable draining operations.

"Yellow fever is no longer the menace to mankind that it was a century ago. Now that we know its cause and how to deal with it there is no question that we can get rid of it altogether. One hundred years from to-day a case of it will probably be regarded as a medical curiosity.

"The countries worst afflicted with it at the present time are Ecuador—especially the port of Guayaquil, which for centuries has been a centre of infection—and Brazil. The Brazilian Government, inspired by what has been accomplished in the Canal Zone and elsewhere, has almost stamped out the disease at Rio de Janeiro, but outside of that important seaport very little has been done as yet. It appears in a sporadic way at the ports of Colombia and Venezuela and occasionally at one place or another on the west coast of Africa. But yellow fever is a disappearing disease; we shall not know it much longer.

"Malaria is a vastly more formidable problem. It prevails more or less nearly everywhere, and especially in the tropics, where it often assumes a malignant form, with an alarming death rate. A monograph on India newly published by the Department of Commerce states that in that country malaria kills more people than either cholera or bubonic plague, though the annual mortality from the latter two diseases is enormous.

"Here again we have a mosquito as the sole carrier. The humid climate and swampy regions of the tropics are most favorable to the propagation of the pestiferous insect. To discourage its breeding by draining and other now familiar means is the only practicable method whereby malaria can be fought.

"Where vast areas are to be dealt with difficulties proportionately great are involved. But in the course of time much will doubtless be accomplished. If the tropics could be freed of the menace of malaria many millions of square miles of the most fertile land in the world, now producing little or nothing, would be made available for settlement by the white man.

"I spoke a moment ago of cholera. It is a typical epidemic disease, its germ a water borne bacterium. From time to time it appears, and may perhaps even rage, in one place or another, but does not stay long.

"Why should this be so? The answer is that nobody knows. The presumption is that its germs under ordinary conditions find circumstances unfavorable to their survival and propagation. Such being the case they die out and the epidemic comes to an end. But given the requisite conditions—unclean living among human beings obviously supplies them—and the malady may hold on indefinitely, killing people like flies.

"Such conditions are found in northern India, where cholera is endemic; in other words, permanently established. Mohammedan pilgrims journeying to Mecca from that part of the world carry cholera with them, and to these pious wayfarers are attributed distributions of the infection which for centuries past have given rise to plagues of the disease invading Europe and even our own country.

"On the whole, however, cholera may be regarded as a disappearing disease. Its range is becoming restricted. The great epidemics of it which formerly devastated Europe at frequent intervals are not likely to recur.

"The best protection against it lies in the knowledge we have recently gained as to its cause. If drinking water be boiled any germs that it contains will be killed and it cannot convey the infection. Fresh vegetables may under certain conditions carry the germs; it is safest to cook them. Of utmost importance is the careful washing of hands.

"When the Western world has been 'cleaned up' the Orient will still remain, at least for a long time, a breeding place for some of the worst diseases that we know. Bubonic plague seems to have originated in a province of China, where it is permanently established and whence it has spread all over the world. To-day it threatens our every seaport, being carried by ship borne rats, and only by unceasing vigilance and utmost effort is our public health service able to keep it out of this country. Even so there have been two alarming epidemics of it in San Francisco within the last few years, and only a few months ago the last plague stricken rat was killed in New Orleans, which the malady had invaded.

"When crowded populations dwell amid unsanitary surroundings, as they do in China and India, and are afflicted by an extreme and almost universal poverty the task of cleaning up is well nigh hopeless—at best beset by extraordinary difficulties. Viewing such conditions one is not surprised that cholera should take an enormous toll of deaths annually in India or that plague should do the same—more than 2,000,000 lives being wiped out not long ago in a single twelvemonth by an epidemic of the latter malady.

"Bubonic plague is a disease of rats. The rat harbors fleas which, deriving the infection from the rodent animal, bite people, thus communicating it to human beings. When the malady reaches a certain point of prevalence the germs get into the air; people take them into their lungs with their breath, and the disease assumes the so-called 'pneumonic' form. In this stage it spreads like wildfire; the victims die in a few hours and whole populations are wiped out to the last man, woman and child.

"No wonder that the 'black death,' as it was called, worked such wholesale destruction in Europe in earlier centuries when from time to time it spread to that part of the world. Sanitation in Europe in those days was much on a par with what it now is in the Orient. We do not realize how new the idea of cleanliness is to mankind.

"The frequent bath is a very modern idea; likewise the notion of cleanliness in the household. The days of old when knights were bold and barons held their sway hold conceptions of romance from our present point of view, but they were the age of filth and rats and all kinds of disease carrying vermin.

"Plague, although a serious menace, no longer alarms us very greatly because we know what causes it and how to get rid of it. Destroy the rats and it will disappear. But the requisite measures, which include the ratproofing of houses and the protection of food supplies against access by rats, in order that they may not be fed, are difficult to apply in the crowded cities of the unsanitary Orient, where the people generally are chronically opposed to innovations.

Major-Gen. William C. Gorgas.

"Nevertheless a beginning has been made and the outlook is hopeful. In a general way we may say that the range of the great epidemic diseases is being progressively restricted. Take leprosy for example.

"Not so very long ago that frightful malady was widespread over the world and comparatively common. Go back 500 years and you find leprosy almost as prevalent in England and on the Continent of Europe as tuberculosis is to-day. The Crusaders returning from their military expeditions to the East brought it home with them and distributed it everywhere.

"At the present time leprosy is rare; it has almost disappeared from the civilized regions of the earth. Cleanliness, better sanitation and improved habits of living have discouraged it. People, for one thing, change their clothes oftener than formerly they did. The weekly family wash, which is a highly effective process of disinfection, may be regarded as a very modern innovation; it was unheard of in the Middle Ages. Every laundry is an institution for the promotion of hygiene.

"Leprosy to-day is not uncommon in some parts of the world, but the regions afflicted by it are few and scattered. Its range is becoming steadily more and more restricted. Medical science has taken in hand the business of dealing with it in the Hawaiian Islands, the Philippines and elsewhere, isolation of the sufferers being the most important means adopted for preventing its spread. As time goes on it will progressively disappear, and the prospect is that a century from now a physician who wishes to study a case will be obliged to hunt for it in some remote locality.

"The Orient since earliest times seems to have been the great hatching ground for epidemic diseases. Smallpox in China and India dates back to remotest historic antiquity. The Crusaders brought it back with them from Palestine; it ravaged the whole civilized world, and during a long period it is said to have taken half a million lives annually in Europe alone. Introduced into the New World it wiped out entire populations in Mexico and South America. Many tribes of our own Indians were nearly exterminated by it.

"People nowadays fail to realize what a frightful pestilence smallpox formerly was. It was literally a decimator of mankind. Yet at the present time, thanks chiefly to vaccination, cases of it, at least in civilized countries, are comparatively rare. We have it always with us, and minor epidemics of it occur every now and then in one place or another, but these are checked by prompt and effective methods, and the disease is not allowed to assume the proportions of a plague.

"Considering how new is the exact knowledge we possess in regard to the causes of epidemic diseases and the means by which they are spread it is wonderful how much has already been accomplished in combating them. Of late typhus fever has been attracting a good deal of popular attention by reason of its ravages in Serbia and parts of Austria; but this malady, which is one of the most deadly known to man, is to-day restricted to a small fraction of its former geographical range—a fact for which the growth of cleanly habits is mainly accountable.

"Our new knowledge of the instrumentality of insects in carrying diseases is of incalculable usefulness in the war we are waging aginst many epidemic maladies. In nearly every city of the United States systematic methods are being adopted for the extermination of house flies, which are distributrs not only of typhoid but of other deadly complaints born of filth.

"The biting flies—in whose category the house fly, of course, is not included—are accountable for the spread of many diseases. For instance, the common stable fly is more than suspected to be the sole carrier of infantile paralysis. The notorious tsetse fly is responsible for the dreaded and invariably fatal 'sleeping sickness,' which in parts of Africa continues to spread, notwithstanding the utmost efforts of medical science to combat it.

"In the course of ages certain minute plants, which we call bacteria, have adopted, presumably through accidental circumstances, a parasitic habit with relation to man. When opportunity serves they take advantage of it to live at his expense, feeding upon the tissues of his body. The same is true of certain minute forms of animal life—as in the case of the malaria germ, which is a protozoon. Such proceedings on their part engender various derangements of physical structure or function which we call diseases.

"But, now that we know how such germ diseases are caused and are able in many instances to study the responsible germs under the microscope, as well as to experiment with them in a variety of ways, we are in a position to conduct a fight against them intelligently and with good prospect of success. In fact, it is upon this knowledge, which is steadily growing, that we may chiefly base our expectation of accomplishing in the course of time a general cleaning up of the world from the standpoint of the health of mankind."

THE FAMILY NAME.

"WOMEN are slowly but surely edging up," remarked a Harlem man who isn't worrying over it one way or another, "and the latest move I've heard of came under my notice a few days ago.

"I know a man and wife in my block whom I shall call Smith because there are 7,000 Smiths in New York and they are not squeamish about the use of their name. His first name is John Wesley and hers is Edna, and when they were married about twenty years ago she was plumb tickled to death to call herself Mrs. John Wesley Smith.

"In these later years of change and progress, however, she began to get new ideas of woman's significance and called herself Mrs. Edna Smith. Her husband, being old fashioned, didn't like it and said as much, but she kept to it.

"By and by when letters to her came addressed to Mrs. Edna Smith he objected strenuously and she agreed to have her letters addressed to Mrs. John Wesley. This ran along peacefully until further progress was made and she began to chafe under the tyranny of man.

"She resorted to secret measures and one day her husband found a letter to her addressed to Mrs. John Edna Smith. This stirred him to his profoundest depths and he launched out at her violently, not to say viciously. She merely smiled and when he had become sufficiently amenable to treatment she told him squarely that she was tired of his bearing all the honors of the family name and that she proposed to have her share and have it publicly.

"She said she was willing to give his name first place, but not all the place, and hereafter she would be Mrs. John Edna Smith, and if he didn't like it what, pray, was he going to do about it? It had been a long fight and John was weakening, while at the same time he was beginning to realize that the woman in the family was about as necessary as the man was and maybe he would be wiser to compromise than to contest.

"It took him three months to come to it, but he finally did, and now he accepts Mrs. John Edna Smith as really a very sensible sort of a name. As for Mrs. Smith, she thinks she has discovered the true solution of the marital nomenclature problem."

MAURICE AND FLORENCE WALTON IN "MADE IN AMERICA" DANCES

A feature of New York's sane Fourth of July celebration was a Parisian street fete held in front of the Vacation House, which is directed by Miss Anne Morgan. The street was roped off to traffic and the populace danced to the music of a fine orchestra. There were also exhibition dances by professional dancers. One of the most striking parts of the programme was a number of strictly American dances rendered by Maurice and Florence Walton. Mr. Walton was dressed as "Uncle Sam" and Miss Walton as "Columbia." According to the Mayor's committee which arranged the programme the services of the Waltons were donated for the entertainment. Taken altogether the celebration was unique as an observance of Independence Day and its success led its backers to believe that such street dances may become a fixture for the Sane Fourth.